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Short Communication

Endemic fatalism and why it will not resolve COVID-19

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ABSTRACT

Objective: The main objective of this commentary is to provide historical insight into the term endemicity and to demonstrate why framing COVID-19 as endemic in early 2022 is a misguided approach.
Study design: The history of epidemiology as well as current data on COVID-19 as provided by the United States Centers for Disease Control, the World Health Organization, and the Johns Hopkins COVID-19 Resource Center was surveyed.
Methods: Records of the Epidemiological Society of London for the period 1850–1900 were analyzed, and several key publications on how infectious diseases were considered endemic were identified.
Results: The term endemicity has a long and twisting history, changing from its meaning in the mid-nineteenth century until our use of it today. The concept has long been tied to historical patterns of colonialism.
Conclusion: Framing COVID-19 as an endemic disease in early 2022 is a misguided attempt and a result of cultural and political forces.
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Pandemic fatigue has been pushed aside by a new phenomenon in many places around the world: endemic fatalism. The raging Omicron variant of COVID-19 has ushered in the highest case positivity rates since the beginning of the pandemic, flooding hospitals and attacking even those vaccinated and boosted against the disease. “We’re all going to get it” is a phrase now heard almost daily. Omicron has in many ways shifted the narrative of COVID-19. Against this backdrop has emerged a new idea that COVID-19 is transitioning from a pandemic to an endemic disease. Spain’s Prime Minister Pedro Sanchez, for example, publicly asserted that the European Union should reduce surveillance, testing, and quarantine periods and treat COVID-19 more like the seasonal flu than a deadly pandemic. This is against the backdrop of COVID-19 cases rising 48% worldwide in just one week, shattering previous records even in countries that have been relatively successful at keeping the disease at bay, such as Australia and Japan.

What's fueling the push to see COVID-19 as endemic, and what's at stake in treating COVID-19 more like the flu, a not-so-subtle shift that health experts have warned against for the past two years? In part the answer stems from the misplaced idea that while Omicron is more contagious than the previous strains of the disease such as the Delta variant, it is less virulent. The United States Centers for Disease Control, for example, reported this week that the Omicron variant has 53% less risk of hospitalization and 91% less risk of death than the Delta variant. This has led many people to think that Omicron is spreading so rapidly around the world, hitting both the vaccinated and the unvaccinated, that we will reach collective herd immunity in short order. Seeing COVID-19 as endemic, in other words, might mean an end to the pandemic.

But reframing COVID-19 as an endemic disease right now is a premature notion at best, representing more of what we want COVID-19 to become than the epidemiological reality we face today. The truth is that hospitals around the world are near capacity, percentage-wise, with more children younger than five years than we have seen throughout the pandemic. Healthcare workers, parents, and those individuals immunocompromised are strained beyond measure after two years of physical and mental hardship. It makes sense that we want to see COVID-19 become a milder disease similar to the seasonal flu: seasonal, predictable, less virulent.

But the evolutionary trajectory of COVID-19 does not at this time suggest a clear path toward endemicity, and epidemiologists and evolutionary biologists warn against impulsively applying this notion to the disease. The seasonal flu, for example, operates on the principle of ‘antigenic turnover,’ where variants of the disease typically arise from prior variants. COVID-19 has not behaved in this manner; Omicron is not an offspring of Delta, and

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not all disease models function on the pattern whereby a new disease must always evolve toward lowered virulence. Take, for example, Ebola. The facts are that we just don't know what Omicron will do to shape global levels of immunity; we certainly don't know what other strains of COVID-19 will lie in the months, weeks, and years ahead.

A historical dive into the term endemic, though, may help us to see the faults of reframing COVID-19 as endemic right now. Although the term was occasionally used in the 18th century, by the mid-19th century, a period that saw the rise of the modern field of epidemiology, endemic was frequently used when thinking about infectious disease. Derived from the Greek words 'in' and 'people,' epidemiologists by the 1850s used endemic to mean diseases that regularly occurred in particular locations. At a time when scientific experts believed that some diseases could erupt spontaneously given the right mix of environmental conditions, the term endemic was tied to terrestrial and soil-based notions of disease. Intimately linked to the term endemic was its counterweight, epidemic, which meant an imported, and often it was believed, contagious disease.

The publicly stated objects of the Epidemiological Society of London, the oldest organization of its kind which began in 1850, was the study of both epidemic and endemic diseases and the relationship between the two. These were connected terms, not oppositional ones, and a disease such as cholera was considered both endemic and epidemic at the same time.

Distinguishing endemic from epidemic was a way to explain the geographical distribution of disease around the world, no doubt, but it was also fueled by 19th century colonialism. At the 1859 presidential address of the Epidemiological Society, president Benjamin Guy Babington implored that "cholera has now been so long regarded as an established endemic of India, that we now hear of its appearance in different localities in that country without surprise, and with comparatively little interest".[1] Framing cholera as endemic to India was a way to scapegoat the origin of the disease to a far-away land and people: 'them' not 'us.' Malaria and yellow fever were seen to be 'endemic' to the tropics, and plague to Southeast and East Asia. Built into the idea of an endemic disease in this era was also a way to explain the rise, distribution, and spread of an epidemic disease. As Babington continued in his 1859 speech on cholera, "it is otherwise when this terrible invader approaches nearer home. We then begin to consult maps, and to compare dates and seasons, in order to ascertain how far the disorder, in respect to its period of invasion, its march, and its mortality, coincides in character with that which it exhibited during its former visits to Europe".[2]

Framing a disease as either endemic or epidemic, then, has also been about fitting a political and cultural agenda. As John Macpherson, Inspector-General of Hospitals in Bengal, India, noted in 1867, "no question in medicine is more interesting than that of an endemic disease taking on the character of an epidemic, and of the behaviour of an endemic, when its own epidemic form reaches it".[3]

By the 1880s with the rise of the germ theory, the notion of an endemic disease began to subtly change to mean a disease present in a location through human-to-human or animal-to-human reservoirs, but one that could for human, animal, or environmental reasons erupt into an epidemic or even a pandemic. Cholera, plague, and typhoid served as models for this new type of thinking. All three had begun to decline in Europe and North America and in the process were labeled as endemic to what we now call the Global South. And the culture wars still raged, in particular with the founding of the World Health Organization and Western-inspired attempts at global health.

The question that came to dominant epidemiologists, ecologists, and evolutionary biologists in the twentieth century was the reasons why an endemic disease might suddenly erupt into an epidemic one. Already by the late 19th century, some experts suggested environmental, evolutionary, and human-animal zoonotic reasons, though even today this question still dominates research into infectious disease.[4] What is clear from even a cursory historical examination of the concept of endemicity is that there are cultural and political and not always scientific reasons for labeling a disease endemic. By the mid-20th century, the term endemic became more oppositional to the term epidemic, and experts in the Global North considered cholera, typhoid, and plague to be diseases endemic to the Global South—out of sight, out of worry. But these diseases, particularly cholera and typhoid, continue to ravage human populations. Western notions of endemicity have enabled those in the Global North to neatly shelf the diseases as problems of economic development. A similar phenomenon happened in the 1990s with HIV/AIDS, when that disease was reframed as endemic, something similar to diabetes in the US and Europe even while it stormed—and continues to storm countries such as South Africa.

Is the Omicron variant an excuse to do the same thing to COVID-19? If so, it seems at best like welcoming endemicity is a neoliberal apology for the failure of most government's ability to properly handle COVID-19 for the past two years. At its worst, this view is a Neodarwinian fatalism; more need to die before we can get back to 'normal.' We should stand against both and be more concerned with putting into place measure we know work to mitigate the spread of the disease. More so than even that, we need to see endemics something like the mid-Victorian epidemiologists saw them, save the cultural imperialism, as intimately connected to epidemics. Edward Goodeve, for instance, the British representative to the 1866 International Sanitary Conference, recommended that cholera had 'endemic centers' which served as the 'starting points' of epidemics. "What may be called the endemicity of cholera," he argued, "is little more than a prolonged epidemic".[5] We may be faced with something eerily similar with COVID-19.

Author statements

Ethical approval

This study did not require any ethical approval or human-based research. As a historical analysis, it did not involve a human trial or research participants.

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Competing interests

None declared.

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